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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/311,562 | 05/14/1999 | LEONARD J. CIMINI | 1999-0045-(2 | 1389 |
| 7590 | 09/24/2004 | | EXAMINER | |
| Samuel H Dworetsky AT&T Corporation P O Box 4110 Middletown, NJ 07748-4110 | | | HSU, ALPUS | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2665 | |

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/311,562

Applicant(s)

CIMINI ET AL.

Examiner

Alpus H. Hsu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed 11 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8,19-21,26-35,39-51,53-55 and 60-64 is/are pending in the application.
- 4a) Of the above claim(s) 39-43 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8,19-21 and 26-35 is/are allowed.
- 6) ☒ Claim(s) 44-51,53-55 and 60-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Non-elected claims 39-43 should be deleted in next response to expedite the prosecution of the instant application.
2. In the specification, page 1, lines 9-12, the applicant is requested to **update** the status from time to time for the listed related co-pending applications.
3. The drawings were received on 11 June 2004. These drawings are not acceptable since they fail to comply with 37 CFR 1.84 regarding drawing changes.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as “Replacement Sheet” (37 CFR 1.121(d)) and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as “amended.” If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor’s name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheets must be clearly labeled as “Annotated Marked-up Drawings” and accompany the replacement sheets.

Timing of Corrections

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Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

4. Claims 44-51, 53-55, 60-64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claimed subject matter of having "a method for receiving in a receiver a plurality of individually modulated carriers, **developing** in said receiver **a synchronization signal from computed phases in the frequency domain of said individually modulated carriers**; and **applying said synchronization signal to a circuit that performs said receiving**" as in claim 44 was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. To be more specific, the receiver as claimed (Figure 3) was briefly described on page 6, lines 1-11 of the disclosure without further explanation as to how the receiver is consisted of and how the receiver is operated to carry out the claimed invention. Furthermore, the only place describing the synchronization signal as claimed was on page 19, lines 18-23 of the disclosure, which requires the averaging of the phase difference between each tone pair to arrive at an overall phase estimate to derive the overall synchronization signal. None of the disclosure fully support the newly claimed invention as amended in claim 44 as a whole.

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5. Claims 44-51, 53-55, 60-64 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 44, lines 4-5, it is unclear as to how a synchronizing signal can be developed from computed phases in the frequency domain of individually modulated carriers. What is the term "computed phases in frequency domain" referring to? In what form does the synchronizing signal look like?

6. No prior art rejection regarding claims 44-51, 53-55, 60-64 can be applied at this time due to the nature of 112, 1st and 2nd paragraphs problems.

7. Claims 1-8, 19-21, 26-35 are allowed.

8. Applicant's arguments filed 11 June 2004 have been fully considered but they are not persuasive.

In the remark, argument regarding claims 1-8, 9-21, 26-35 is well taken and these claims have been allowed accordingly. However, argument regarding claims 44-51, 53-55, 60-64 is not persuasive for the following reasoning: regarding the support of claim 44, the applicant refers to "I/O Input" element, "Timing and Frequency Offset Estimation" element, and "Timing Adjustment" element in Figure 3 and further refers specifically to page 9, line 4 through page 12, line 12 of the disclosure for supporting the claimed synchronizing signal as introduced in the amended claims, which was not persuasive since on page 10 through page 12, line 12 of the disclosure, it merely describes how the timing offset estimate was determined based on the phase changes in frequency domain. Nowhere in this part of disclosure mention or suggest that there is a synchronizing signal being developed and/or fed to a circuit that performs the receiving.

Therefore, the 112, 1st paragraph rejection regarding claims 44-51, 53-55, 60-64 has been sustained.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

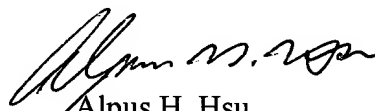
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (571)272-3146. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHH



Alpus H. Hsu
Primary Examiner
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